


Engineer: Chris Samios	Date: 5/30/02	 5800 Departure Drive, Raleigh, NC 27616			
Drawn: Jack Curtis	Date: 5/30/02				
Approved: CTS	Date: 5/30/02	Title: ACU RADIO APPLICATION NOTES			
Issued/ Revised	Date: 11/10/04	Size: A	Dwg. #: 5961-271219-APP	Rev: A4	Sheet: 1 Of 2

APPLIES TO: Motorola Spectra High Power Mobile (Trunk-mount)

RADIO MODIFICATIONS: None Required

RADIO PROGRAMMING:

1. Mobile radios should normally be programmed for low transmit power.

RADIO CONTROLS:

1. Adjust the Volume Control until the yellow "SIGNAL" indicator on the associated DSP Module flashes with receive audio. This is approximately level 7 or 8.

CABLING:

Standard ACU-1000 and ACU-T Interface cables are made up of a 2 foot TRP Radio Tray Interface cable and the appropriate 13-foot extension cable.

ACU-1000 Interface Cable	JPS P/N 5961-291219	(P/N 5961-271219 + P/N 5961-261002-00)
ACU-T Interface Cable	JPS P/N 5961-281219	(P/N 5961-271219 + P/N 5961-281013-00)
TRP-1000 Shelf Interface Cable	JPS P/N 5961-271219	
RF Connector Type	Mini UHF	

DSP-1 JUMPERS:

JP1	Low Impedance *
JP2	Balanced *

DSP PROGRAMMING:

RX Level	3*	0 dBm*	
TX Level	6*	0 dBm*	
Squelch Type	COR		See note below
COR Polarity	Active High		
High Frequency Equalizer	6	+3.5 dB	
RX Audio Delay	2*	100 ms*	
TX Audio Delay (Radio type)	0*	No Delay*	See note below
Noise Reduction Value	0*	Off*	
VOX/VMR Threshold	1*	Med1*	
VOX/VMR Hang Time	3*	775*	
COR Inhibit After PTT	1*	100 ms*	See note below
All Others	As needed		

(* Indicates Default Value)

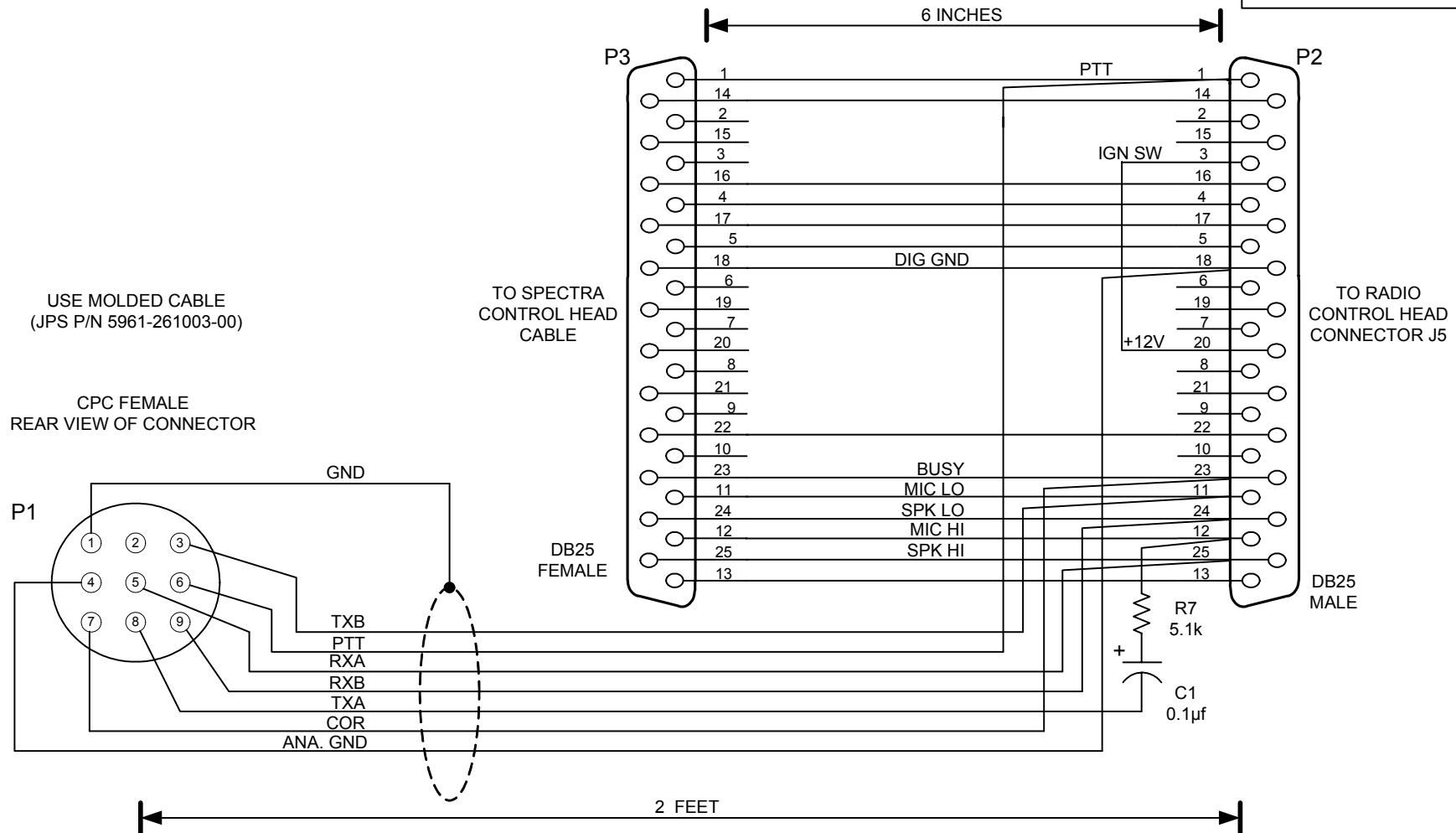
NOTES:

For trunked radios:

1. COR Inhibit After PTT time may need to be increased to prevent “ping-pong” effect. If this does not resolve the problem, Squelch Type may need to be changed to VMR.
2. If radio is trunked, set TX Audio Delay to 4 (800 ms).

PURCHASED PART

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NOTES: SHIELD DRAIN CONNECTED TO PIN 1 OF P1 ONLY.
INSTALL JACKSCREWS ON P3.

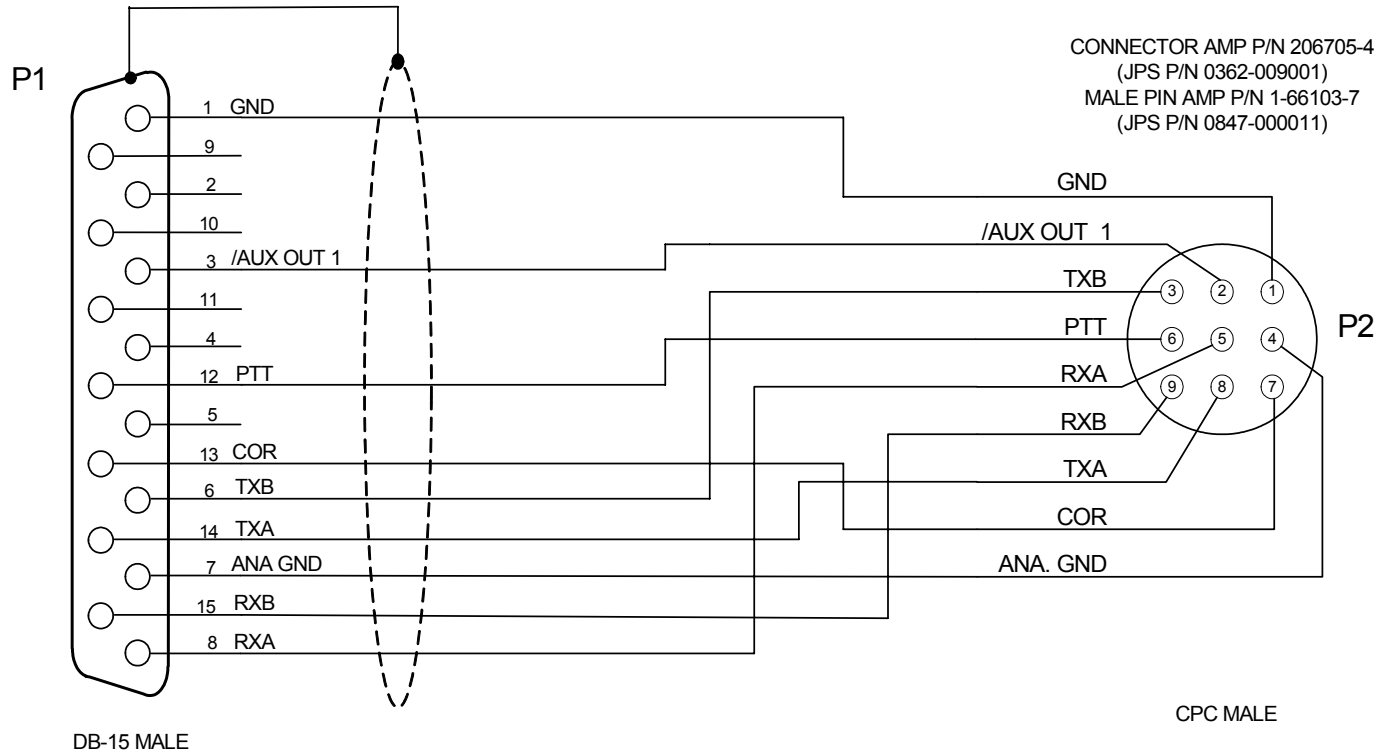
COMPONENT PCB (JPS P/N 5961-271000)	
C1	JPS P/N 0327-104101
R7	JPS P/N 1820-512000
JU4	

USED WITH:
MOTOROLA SPECTRA MOBILE (TRUNK-MOUNT ONLY)

Designed By: CTS	Raytheon JPS Communications Raleigh, NC USA		
Drawn By: EDV	Title CABLE, CPC TO MOTOROLA SPECTRA (TRUNKMOUNT)		
Checked By: JAC	Size A	Document Number 5961-271219	Rev A
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- NOTES: 1) USE BELDEN 9934 SHIELDED CABLE.
2) CONNECT SHIELD DRAIN TO SHELL OF P1 ONLY.
3) CONNECTORS P1 AND P2 MUST BE MOLDED TO THE CABLE.
4) CABLE MUST BE LABELED WITH THE RAYTHEON/JPS P/N AND REV, VENDOR CODE AND DATE (MM/YY).

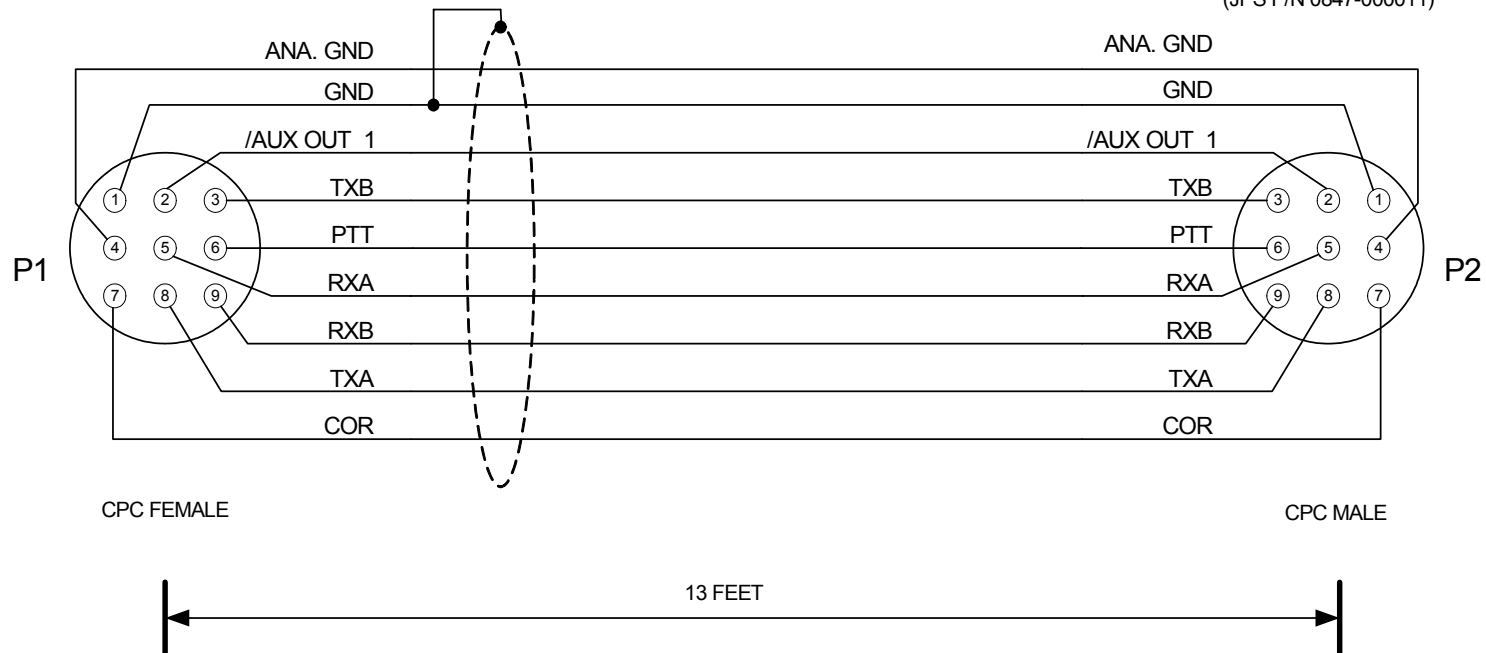
Designed By: JAC	Raytheon JPS Communications		
Drawn By: JAC	Title CABLE, ACU-1000 RADIO EXTENSION - 13 FT		
Checked By: RBP	Size A	Document Number 5961-261002-00	Rev A
Issued Date JANUARY 5, 2004		Sheet <u>1</u> of <u>1</u>	

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PURCHASED PART

CONNECTOR AMP P/N 206708-1
(JPS P/N 0362-005003)
FEMALE PIN AMP P/N 1-66105-8
(JPS P/N 0362-005002)

CONNECTOR AMP P/N 206705-4
(JPS P/N 0362-009001)
MALE PIN AMP P/N 1-66103-7
(JPS P/N 0847-000011)



- NOTES: 1) USE BELDEN 9934 SHIELDED CABLE.
2) CONNECT SHIELD DRAIN TO PIN 1 OF P1 ONLY.
3) CONNECTORS P1 AND P2 MUST BE MOLDED TO THE CABLE.
4) CABLE MUST BE LABELED WITH THE RAYTHEON/JPS P/N AND REV, VENDOR CODE AND DATE (MM/YY).

Designed By: JAC	Raytheon JPS Communications Raleigh, NC USA		
Drawn By: JAC	Title CABLE, ACU-T RADIO EXTENSION - 13 FT		
Checked By: RBP	Size A	Document Number 5961-281013-00	Rev A
Issued Date JANUARY 5, 2004		Sheet <u>1</u> of <u>1</u>	